ENVIRONMENTAL CHEMISTS

Date of Report: 10/09/01 Date Received: 10/03/01

Project: Metro K.C. Grab PO# M66822

Date Extracted: 10/03/01 Date Analyzed: 10/03/01

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Results Reported as mg/L (ppm)

Sample ID	Chromit	<u> Copper</u>	<u>Nickel</u>	<u>Zinc</u>
Laboratory ID	음악 [편경하기 180] 1802 6	그 양보 시작 없는 중인		
Min SMA				
M66822	0.33	0.38	0.44	0.06
110015-01				
Method Bla	mk <0.05	< 0.05	< 0.05	< 0.05

ENVIRONMENTAL CHEMISTS

Date of Report: 10/09/01 Date Received: 10/03/01

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QUALITY ASSURANCE RESULTS FROM TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 110015-01 (Duplicate)

								Relative			
	Whiteh:	Reporting		Sample	\mathbf{D}	uplica	te	Percent	Acc	ceptan	ce
Analyte		Units		Result		Result	. <u>D</u>	ifferenc	e C	riteria	1
Chromium		mg/L (ppm)	100	0.33		0.35	31355	6		0-20	
Copper		mg/L (ppm)		0.38		0.37		3	Nation*	0-20	
Nickel		mg/L (ppm)		0.44		0.45		2		0-20	
Zinc		mg/L (ppm)		0.06		0.05		18		0-20	
	Chromium Copper Nickel	Chromium Copper Nickel	Analyte Units Chromium mg/L (ppm) Copper mg/L (ppm) Nickel mg/L (ppm)	Analyte Units Chromium mg/L (ppm) Copper mg/L (ppm) Nickel mg/L (ppm)	Analyte Units Result Chromium mg/L (ppm) 0.33 Copper mg/L (ppm) 0.38 Nickel mg/L (ppm) 0.44	Analyte Units Result Chromium mg/L (ppm) 0.33 Copper mg/L (ppm) 0.38 Nickel mg/L (ppm) 0.44	Analyte Units Result Result Chromium mg/L (ppm) 0.33 0.35 Copper mg/L (ppm) 0.38 0.37 Nickel mg/L (ppm) 0.44 0.45	Reporting Sample Duplicate Analyte Units Result Result D Chromium mg/L (ppm) 0.33 0.35 Copper mg/L (ppm) 0.38 0.37 Nickel mg/L (ppm) 0.44 0.45	Reporting Analyte Sample Units Duplicate Result Percent Perc	Analyte Units Result Result Difference C Chromium mg/L (ppm) 0.33 0.35 6 Copper mg/L (ppm) 0.38 0.37 3 Nickel mg/L (ppm) 0.44 0.45 2	Reporting Analyte Sample Units Duplicate Result Percent Perc

Laboratory Code: 110015-01 (Matrix Spike)

	Reporting	Spike	Sample	% Recover	y Acceptance
Analyte	Units	Level	Result	MS	Criteria
Chromium	mg/L (ppm)	1	0.33	82	80-120
Copper	mg/L (ppm)	1	0.38	74 b	80-120
Nickel	mg/L (ppm)	2	0.44	75 b	80-120
Zinc	mg/L (ppm)	1	0.06	85	80-120

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recove	ery %	Recove	ery A	Acceptanc Criteria	e RPI (Limit	
Chromium	mg/L (ppm)	1	98		99		80-120	1	
Copper	mg/L (ppm)	1	100		92		80-120	8	
Nickel	mg/L (ppm)	2	103		97	The Lates	80-120	6	
Zinc	mg/L (ppm)	. 1	105		100		80-120	5	

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

[[00]	SAMPLE CHAIN OF CUSTODY										B	Į,	1	5/3	101	٨	15				
Send Report To Care Company Aldress 628 5. A City, State, ZIP Seath Phone # 206-382-8379	le a	in 8	P34	PROJE PREMA	CT NAMEA HO KC RKS	NO.	Gr.					PC 686)#		D Rt	Stand RUSH ash ch S. Dispo	JRNA lard (H arges AMPl se aftern san	2 Weeks author LE DISter 30 do	D TIMI	7:	
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	8270	HFS	ES RI PA IN TOTO	EQUI	EST	ED			d'	Notes		
m 66822	-01	10/3	1:0m	Hio																	
Friedman & Bruya, Inc.	Ralinada		IATURE		P.	RIN		_						MPA	ANY			DATE	TI	ME	
3012 16th Avenue West Seattle, WA 98119-2029 Ph. (206) 285-8282 Fax (206) 283-5044	Relinquished by: Received by:				CENEGO VICTORIO						de Pq				101	13/01	1.5	8pn 5pn			

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ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Charlene Morrow, M.S. Yelena Aravkina, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

October 9, 2001

DUPLICATE COPY

INVOICE #01ACU1009-1

Accounts Payable Alaskan Copper Works 628 South Hanford Seattle, WA 98134

RE: Project Metro K.C. Grab PO# M66822 - Results of testing requested by Gerry Thompson for material submitted on October 3, 2001.

FEDERAL TAX ID #(b) (6)

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Charlene Morrow, M.S. Yelena Aravkina, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

October 9, 2001

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on October 3, 2001 from your Metro K.C. Grab PO# M66822 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely.

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures ACU1009R.DOC